# Centers for Disease Control and Prevention

## Bioterrorism Preparedness and Response Initiative
## "A Strategy for Public Health"

**National Emergency Management Association**
**2001 Mid-Year Conference**

**Washington, D.C. February 12, 2001**

# CDC Mission Statement

*To promote health and quality of life by preventing and controlling disease, injury, and disability*

The Bioterrorism Mission: To lead the public health effort in enhancing readiness to detect and respond to bioterrorism

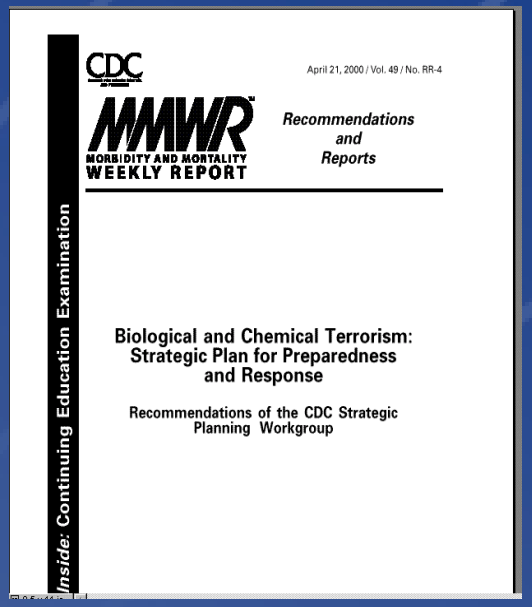
# CDC's Concerns with Bioterrorism?

- **Vulnerable public health system**
- **Significantly high consequences**
- **Increasing demands on an aging public health infrastructure**
- **Need for expanded capacities to address bioterrorism**
- **Emerging technologies increase the risk**
- **Healthcare provider community not fully prepared to identify symptoms or appropriately respond**


# Background

- CDC charged by the Secretary of DHHS to lead the effort to ensure the U.S. public health infrastructure is fully prepared to respond to bioterrorism (1999).

- Under Federal Response Plan, CDC Functions under ESF 8 in collaboration with DHHS/Office of Emergency Management to address Health and Medical aspects of response.

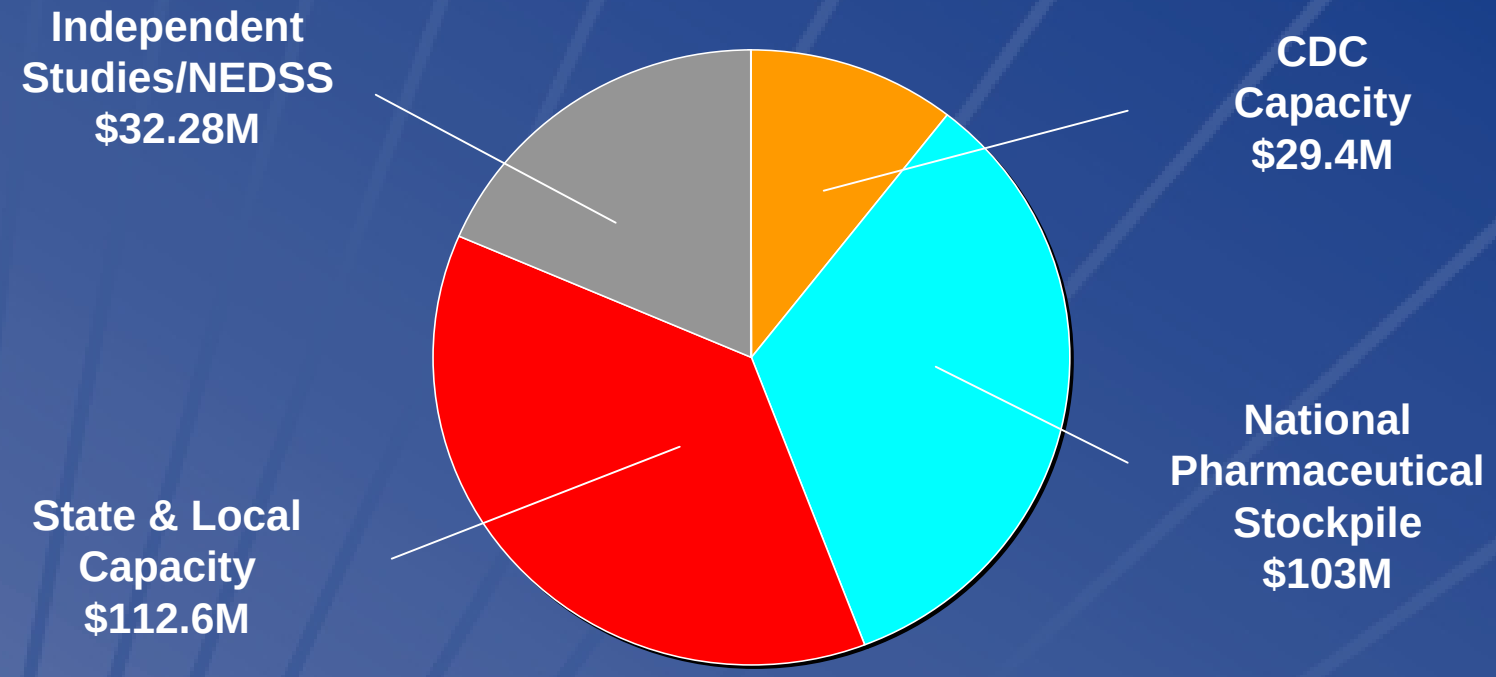


# Organization of the Bioterrorism Initiative at CDC

| | |
|---|---|
| **National Center for Infectious Diseases (NCID)** | Laboratories (Rapid Testing and Triage), Research, Surveillance, Bio. Response, Hospital Preparedness, Quarantine Issues |
| **National Center for Environmental Health (NCEH)** | Environmental and Chemical Laboratory Capability, Planning, Stockpile |
| **Public Health Practice Program Office (PHPPO)** | Health Alert Network, Training, Centers for Public Health Preparedness |
| **Epidemiology Program Office (EPO)** | Epi/Surveillance, Detection, Investigation, Communications, Epi-X |
| **Office of Health and Safety (OHS)** | Administers Select Agent Rule, Lab Safety Consultations and Guidelines |
| **National Institute for Occupational Safety and Health (NIOSH)** | Worker Safety, Personal Protection Devices |
| **National Immunization Program (NIP)** | Vaccine Development and Vaccine Safety |
| **Agency for Toxic Substances and Disease Registry (ATSDR)** | Medical Management Guidelines for Chemical exposures |

# CDC Bioterrorism Preparedness and Response Initiative Funding to Date

## FY 1999 and 2000




**TOTAL: $278,828,000**

Funding for FY2001 $180+ million

# CDC Bioterrorism Preparedness and Response Initiative

## Needed Capabilities

- **Rapid disease detection and investigation,**
- **Laboratory: agent identification, classification, and characterization (bacterias, viruses, and toxins)**
- **Public health response**
- **Public health information technology**
- **Training**

# Disease Detection and Investigation

# Biological and Chemical Terrorism Threat Agents of Concern Category A List

- B. anthracis (anthrax)
- Variola virus (smallpox)
- Y. pestis (plague)
- F. tularensis (tularemia)
- Botulinum toxin (botulism)
- Viral Hemorrhagic fever viruses
  - Ebola, Marburg, Lassa

**These agents:**

- **Can be easily transmitted person-to-person,**
- **cause high mortality, with potential for major public health impact,**
- **might cause public panic and social disruption, and**
- **require special action for public health preparedness.**

# Biological and Chemical Terrorism Threat Agents of Concern Category B List

- Coxiella burnetti (Q fever)
- Brucella species (brucellosis)
- Burkholderia mallie (glanders)
- alpha viruses (VEE, EEE, WEE)
- ricin toxin (from castor beans)
- Epsilon toxin of Clostridium perfringens
- Staphylococcus enterotoxin B.
- Some food/waterborne pathogens

**These agents:**

- **Are moderately easy to disseminate,**
- **Cause moderate morbidity and low mortality, and**
- **Require specific enhancements of CDC's diagnostic capacity and enhanced disease surveillance.**

# Biological and Chemical Terrorism Threat Agents of Concern Category C List

- Nipah virus
- hantavirus
- tickborne hemorrahagic fever viruses
- tickborne encephalitis viruses
- yellow fever
- Multi-drug-resistant tuberculosis

**These agents include emerging pathogens that could be engineered for mass dissemination in the future because of:**

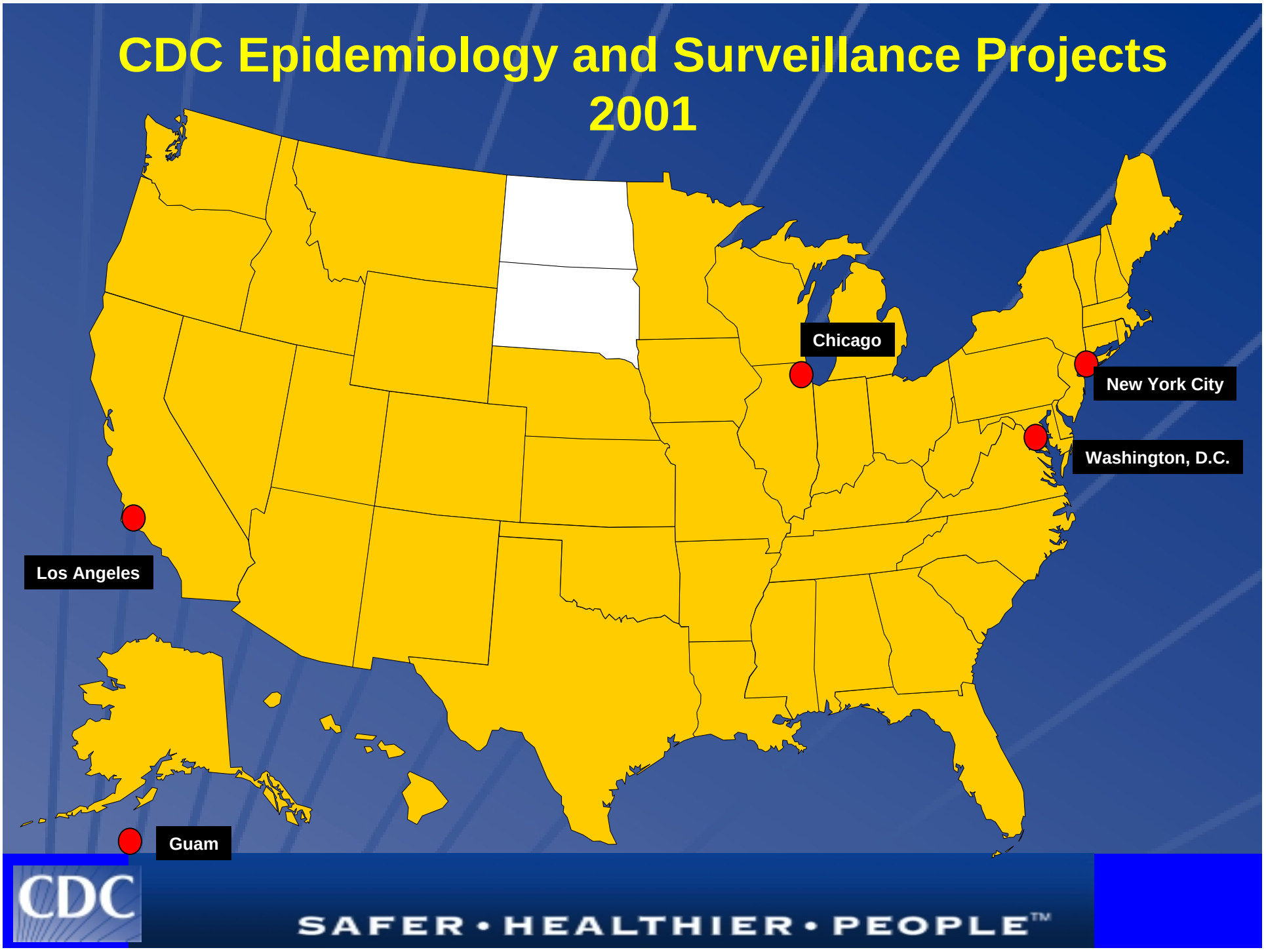
- **availability,**
- **ease of production and dissemination, and**
- **potential for high morbidity and mortality and major public health impact.**

# Program Achievements
# State and Local

**Epidemiology and Surveillance:**

- 52 projects have been awarded funds to:
  - Hire staff (e.g., surveillance coordinators)
  - Support rapid reporting of of bioterrorism-specific diseases and unusual events
  - Identify and train rapid response teams
  - Improve emergency notification procedures
  - Develop reporting mechanisms with animal healthcare providers, medical examiners, poison control centers, hospitals, EMS, and others

# CDC Epidemiology and Surveillance Projects 2001



# Program Achievements at CDC

**Epidemiology and Surveillance:**

- Developed disease-specific information for:
  - healthcare providers,
  - emergency first responders,
  - Laboratorians, and
  - the public.
- Drafted disease-specific response plans for select Category A agents.

# Program Achievements at CDC

**Epidemiology and Surveillance:**

- Special Event or “Drop-In” Surveillance Efforts
  - 1999, World Trade Organization Conference in Seattle, Washington
  - 2000, Democratic and Republican National Conventions
  - 2001, Superbowl in Tampa, FL

The technology used in this effort provides rapid collection and analysis of critical disease control information needed to thwart a potential bioterrorism event.

# Laboratory Capacity

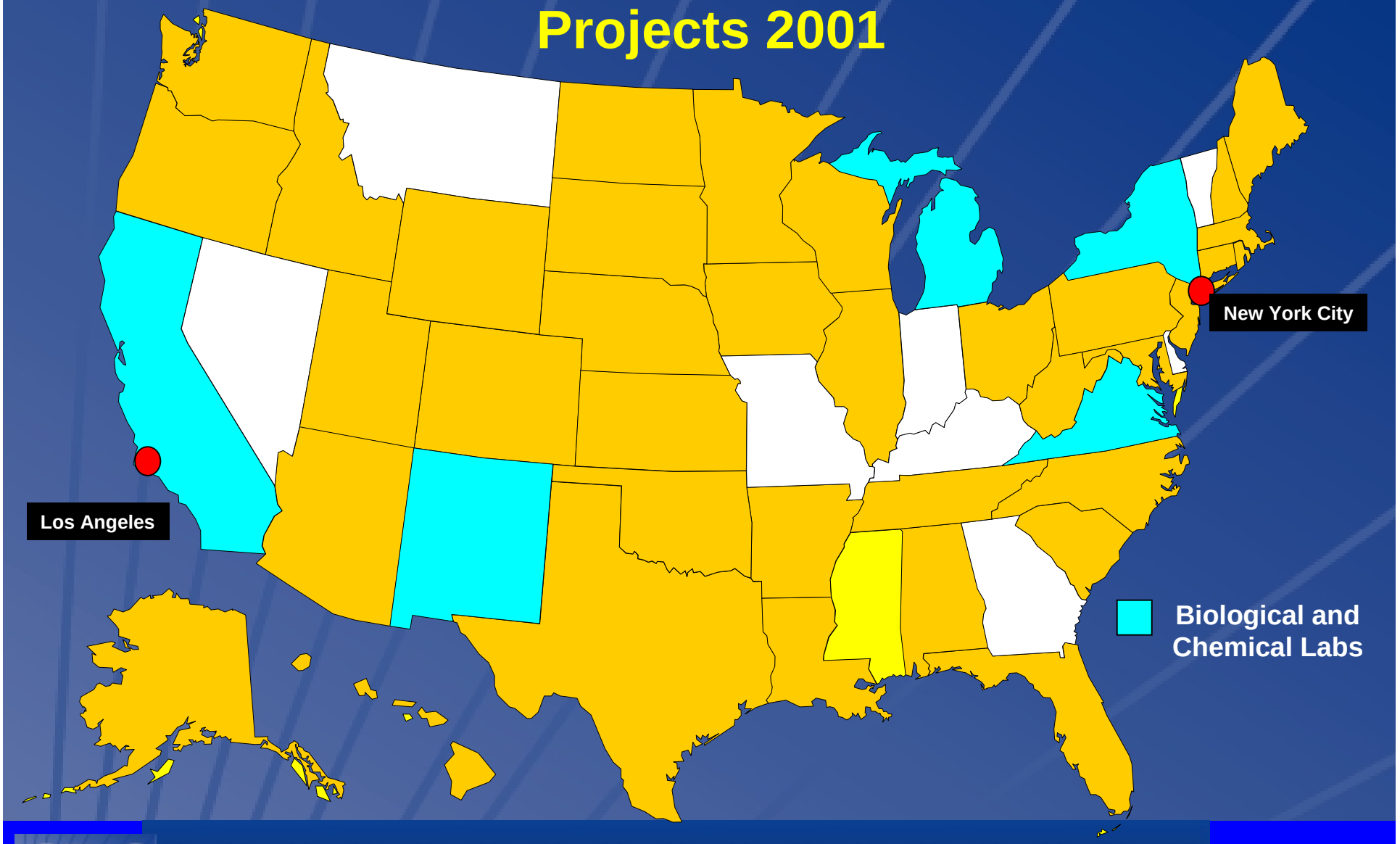
# Program Achievements
## State and Local

**Laboratory Capacity:**

- **81 state public health laboratories in 50 states now have some capacity to test for plague, tularemia, and anthrax**

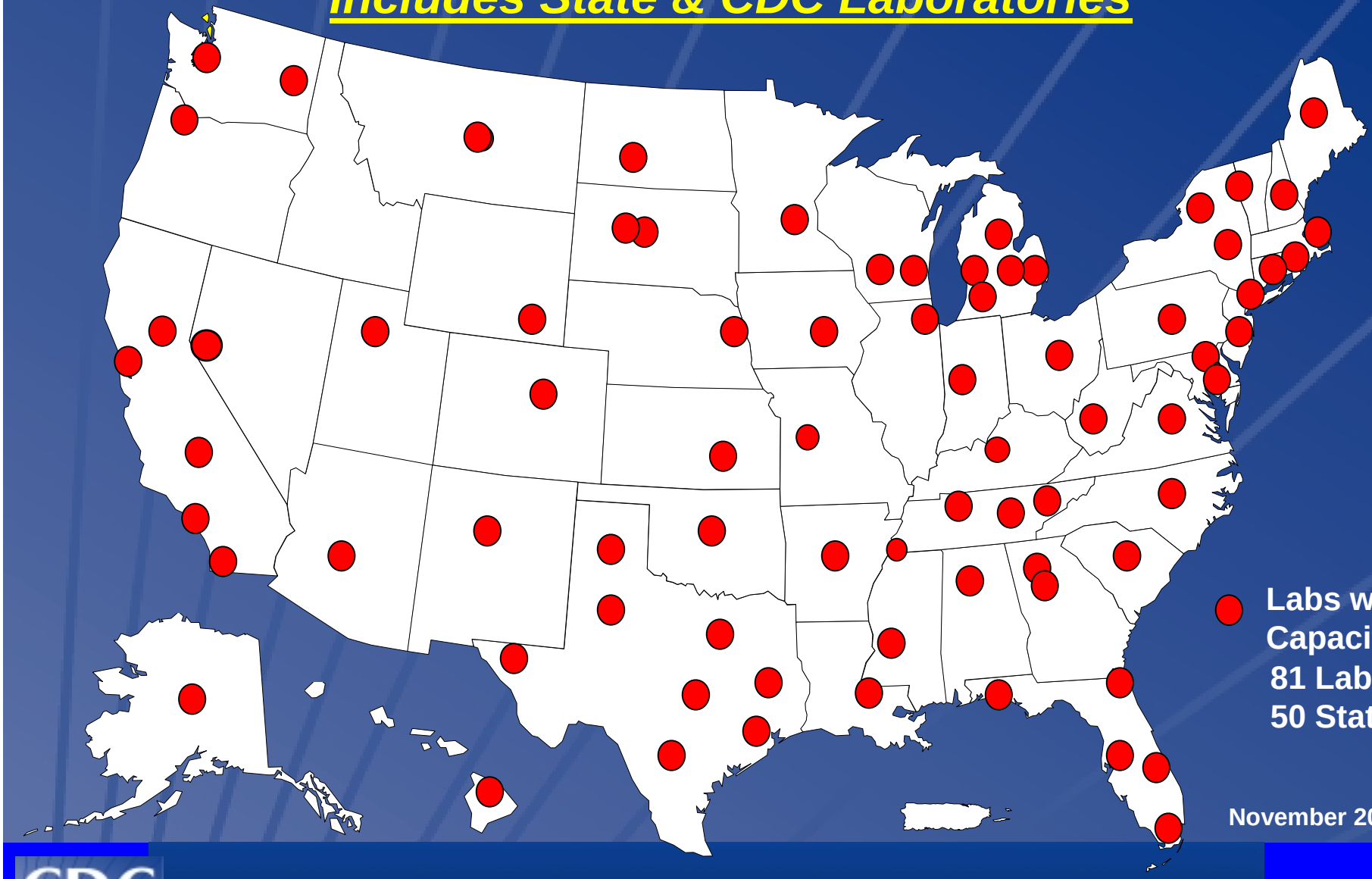
- **22 state public health laboratories can test for botulinum toxins**

# CDC Biological and Chemical Laboratory Projects 2001



# Laboratory Response Network for Bioterrorism

## *Includes State & CDC Laboratories*



Labs with Capacity
81 Labs
50 States

November 2000

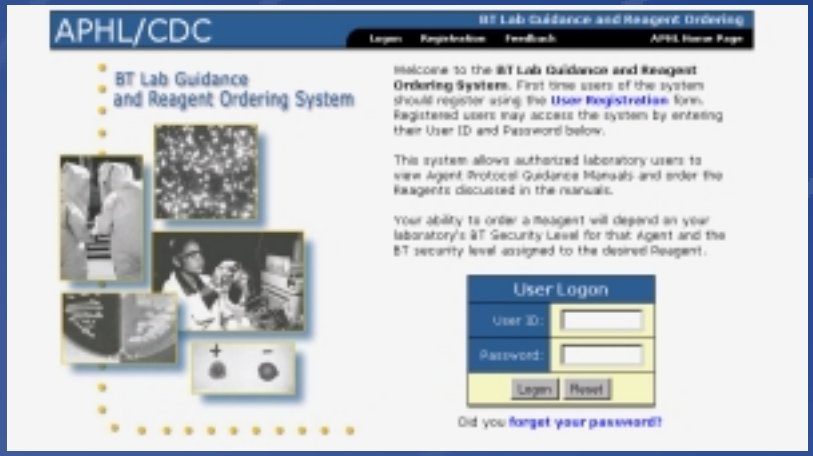
CDC

SAFER • HEALTHIER • PEOPLE™

# Program Achievements
## at CDC

**Laboratory Capacity:**

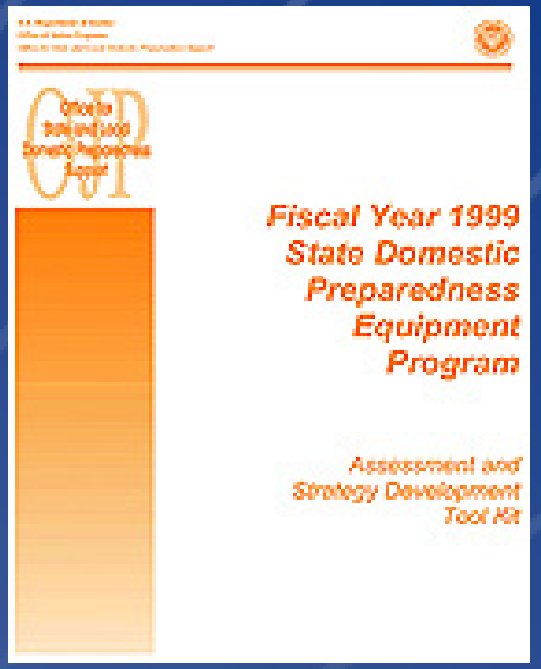
- **Can now test for all six agents on the Critical Biological Agents List**
- **Increased the number of agents on its Rapid Toxic Screening List**
- **Established the Rapid Response and Advanced Technology Laboratory**
- **Created the Laboratory Response Network**



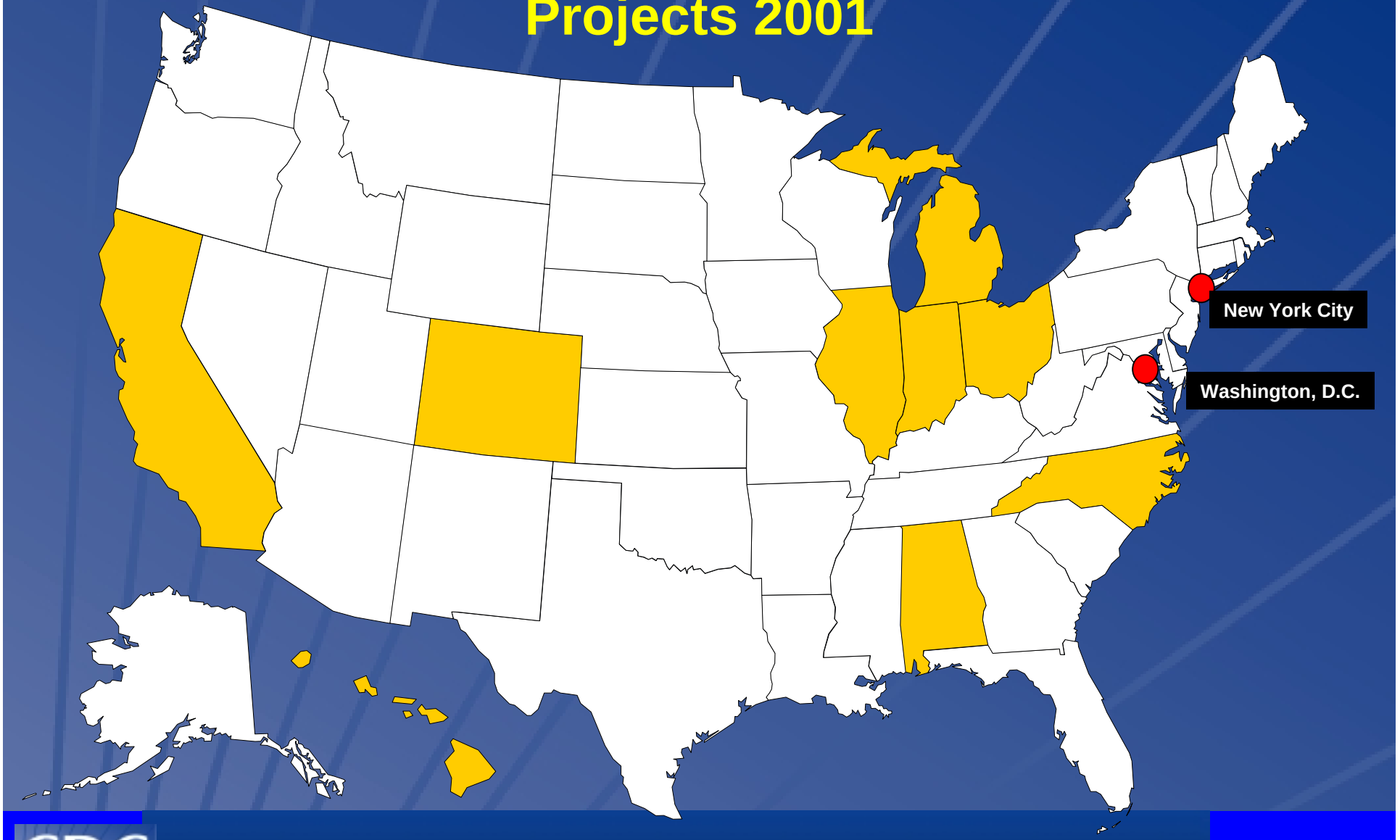
# Public Health Response Capacity

# Preparedness and Readiness
## State and Local

- Public Health Emergency Response Assessment of Local Health Agencies - partnership with DOJ
- 11 State/local projects funded to develop model plans/best practices



# CDC Preparedness Planning and Readiness Projects 2001



# Preparedness and Response
## at CDC

**The National Pharmaceutical Stockpile:**

- Eight push packages ready for deployment within 12 hours anywhere in the U.S.
- Vendor Managed Inventory (VMI) – specific medical supplies needed to control and contain outbreaks of infectious diseases and other emergency incidents

# Preparedness and Response
## at CDC

**Vaccines:**

- Contract with Ora Vax, Inc. to develop new Smallpox vaccine
- Studies with NIH regarding expanded use of existing stockpile of smallpox vaccine
- DHHS has formed a workgroup to evaluate vaccines currently available or in development for select biological threat agents

# Preparedness and Response
## at CDC

- CDC Staffing Assistance:
  - Trained epidemiologists – "disease detectives"
  - Public Health Advisors
  - Public Health Preventions Specialists
- Hospital Preparedness
  - Template for preparedness
  - Guidance developed with AHA to address mass causalities

# Public Health Information Technology Capacity

# Program Achievements
## State and Local

**Health Alert Network:**

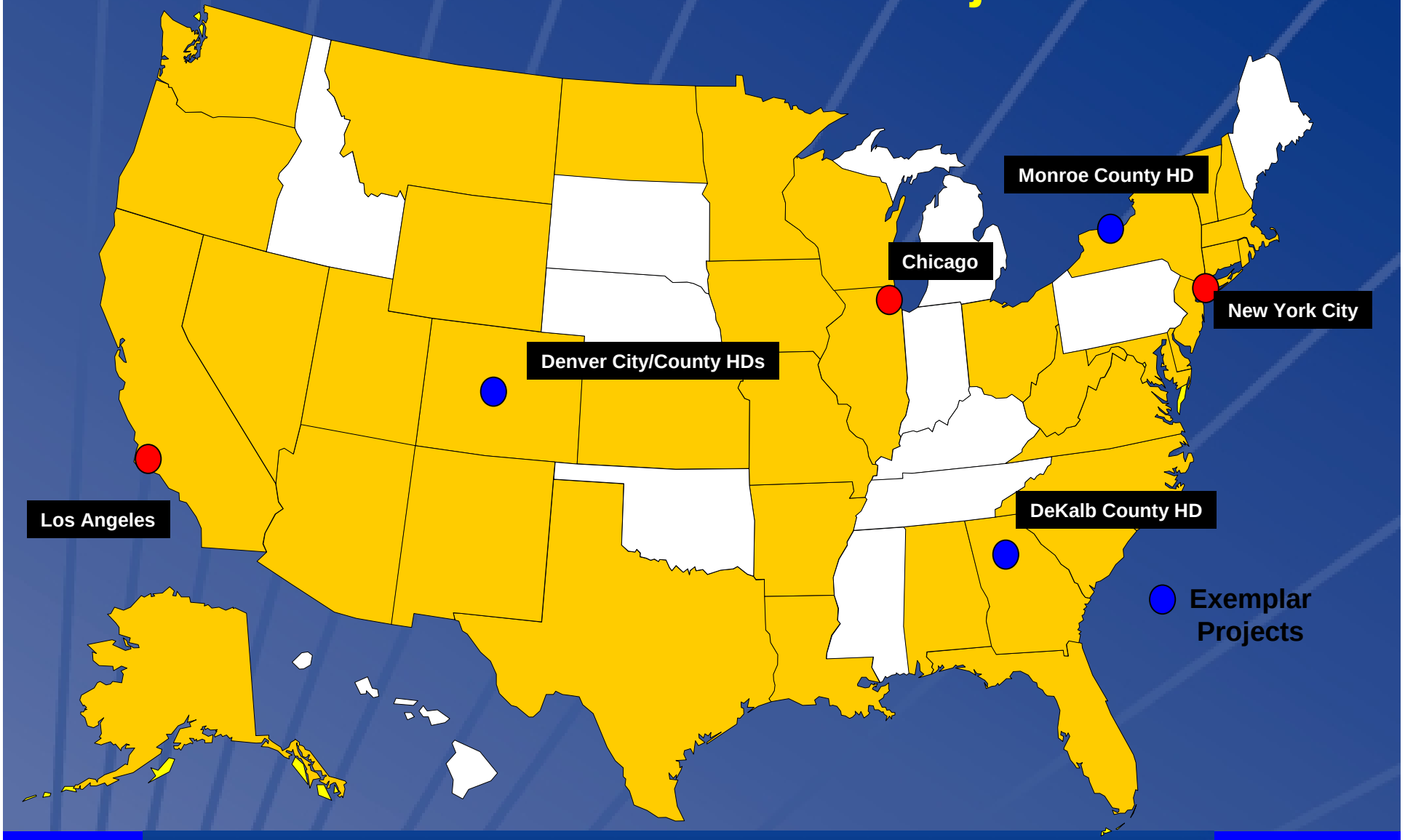
- **Ensure communications capacity at all local and state health departments (full Internet connectivity, training)**
- **Ensure capacity to broadcast and receive health alerts at every level**
- **Ensure capacity to receive distance learning offerings**

# Program Achievements
## State and Local

**Health Alert Network:**

- **55% of full-function local health agencies have high-speed, continuous, Internet capacity**
- **56% have ability to send urgent health alerts**
- **82% have access to satellite downlink facilities within 30 minutes drive time from work**

# CDC Health Alert Network Projects 2001



# Program Achievements
## at CDC

**Information Technology**

## National Electronic Disease Surveillance System (NEDSS)

- Goal is to electronically link and integrate a wide variety of surveillance activities meeting necessary confidentiality and security requirements facilitating more accurate and timely reporting of disease data
- $9+million awarded in September 2000 to select state and local health agencies to begin to plan and/or develop electronic surveillance systems

## The Epidemic Information Exchange Program (EPI X)

- Expedite the exchange of accurate information across program areas
- Link related outbreaks and other health events
- Help officials respond to emerging health events
- Assure notification of health officials

# Training

# Program Achievements
## State and Local

**Training:**

- Laboratory training programs specific to the Critical Agents have been developed and are being conducted by CDC. To date 75% of state lab personnel who are members of the LRN have been trained.
- Over 17,000 state/local public health staff, private healthcare providers, and other emergency response personnel have been trained via distance learning offerings.

# Program Achievements
## at CDC

**Training:**

- National Bioterrorism Preparedness and Response Training Plan
- Centers for Public Health Preparedness
  - Competency-based public health practice curricula
  - Technology-mediated learning
  - Certification and credentialing
  - Applied research and evaluation

# Centers for Public Health Preparedness

## Academic Centers

- Columbia Univ. Sch. of PH, with New York City HD
- Univ. of Illinois at Chicago, Sch. of PH
- Univ. of NC Sch. of PH with UNC Center for Infectious Diseases
- Univ. of Washington Sch. of PH

## Specialty Centers

- Dartmouth Medical Sch., Interactive Media Lab. - *Collaboratory in Applied Communications Technology*
- Johns Hopkins Sch. of PH & Hygiene, w/ Georgetown Univ. Law Center-*Collaborating Center in PH Law*
- St. Louis Univ. Sch. of PH- *Center for Bioterrorism Studies*

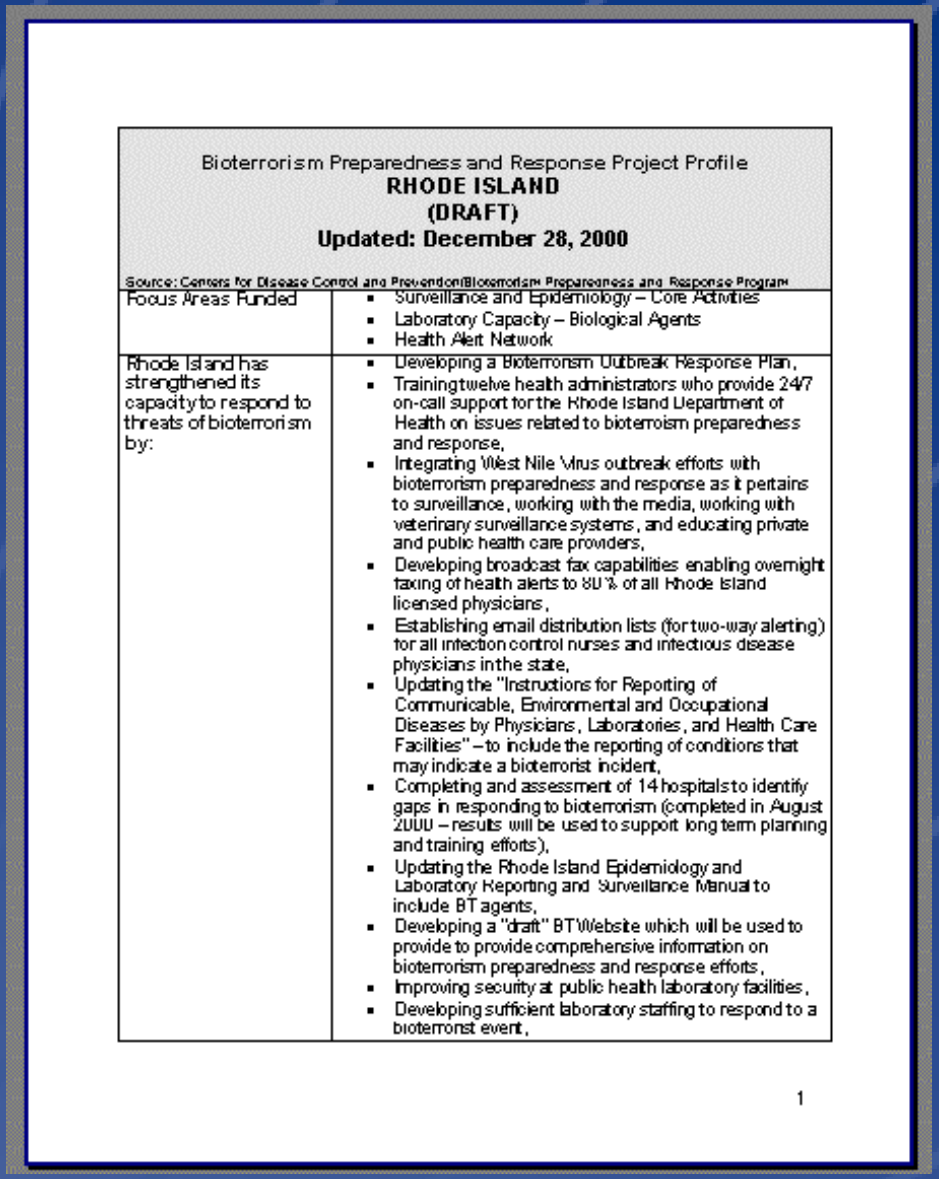
## Local Health Agencies

- Dekalb County Bd. of Health, GA
- Denver Health and Denver Public Health, CO
- Monroe County Health Department, NY

# Plans for 2001

# Priority Activities for 2001

- Identify needed capacities for state and local public health agencies to respond to bioterrorism
- Refine BT performance standards
- Enhance key partnerships
- Develop expert guidance to support state and local efforts
- Evaluate and document state and local progress
- Prepare for impact of Frist/Kennedy (Public Health Improvement Act)



Bioterrorism Preparedness and Response Project Profile
**RHODE ISLAND**
**(DRAFT)**
**Updated: December 28, 2000**

Source: Centers for Disease Control and Prevention/Bioterrorism Preparedness and Response Program

| | |
|---|---|
| Focus Areas Funded | ▪ Surveillance and Epidemiology – Core Activities<br>▪ Laboratory Capacity – Biological Agents<br>▪ Health Alert Network |
| Rhode Island has strengthened its capacity to respond to threats of bioterrorism by: | ▪ Developing a Bioterrorism Outbreak Response Plan,<br>▪ Training twelve health administrators who provide 24/7 on-call support for the Rhode Island Department of Health on issues related to bioterrorism preparedness and response,<br>▪ Integrating West Nile Virus outbreak efforts with bioterrorism preparedness and response as it pertains to surveillance, working with the media, working with veterinary surveillance systems, and educating private and public health care providers,<br>▪ Developing broadcast fax capabilities enabling overnight faxing of health alerts to 80% of all Rhode Island licensed physicians,<br>▪ Establishing email distribution lists (for two-way alerting) for all infection control nurses and infectious disease physicians in the state,<br>▪ Updating the "Instructions for Reporting of Communicable, Environmental and Occupational Diseases by Physicians, Laboratories, and Health Care Facilities" – to include the reporting of conditions that may indicate a bioterrorist incident,<br>▪ Completing and assessment of 14 hospitals to identify gaps in responding to bioterrorism (completed in August 2000 – results will be used to support long term planning and training efforts),<br>▪ Updating the Rhode Island Epidemiology and Laboratory Reporting and Surveillance Manual to include BT agents,<br>▪ Developing a "draft" BT Website which will be used to provide to provide comprehensive information on bioterrorism preparedness and response efforts,<br>▪ Improving security at public health laboratory facilities,<br>▪ Developing sufficient laboratory staffing to respond to a bioterrorist event, |

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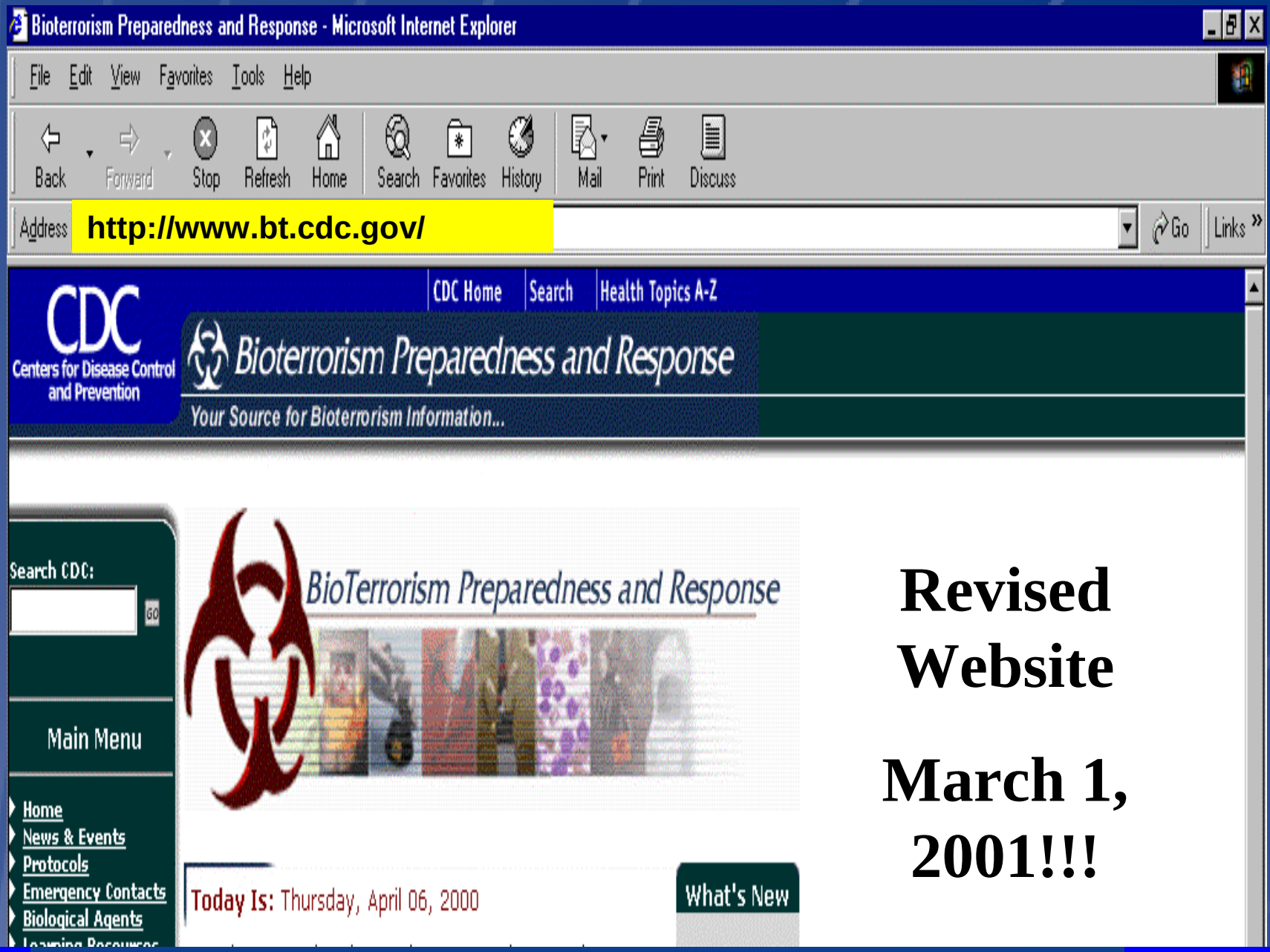


**Revised Website**

**March 1, 2001!!!**

# Contact Information

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